



MINISTRY OF LABOUR

Wool Textile Industry Spacing of Machinery

Minimum standards recommended by
The Joint Factory Advisory Committee and
The Joint Standing Committee



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Introduction

THE Chief Inspector of Factories formed in 1945 a Joint Factory Advisory Committee representative of the Wool Textile Industry of Great Britain to consider, amongst other things, the remedies for the overcrowding of machinery. Its Final Report was published in 1949.

On the recommendation of this Committee a Joint Standing Committee was set up with members nominated by the Wool (and Allied) Textile Employers' Council, the National Association of Unions in the Textile Trades and the Factory Inspectorate. One of its functions was to review, after five years, the situation as regards the spacing of machinery. This it did and its First Report made in December, 1954, proposed certain amendments to the recommended spacing standards which were accepted by the Chief Inspector of Factories.

The Committee found that while much had been done voluntarily to improve the spacing of machinery a great deal remained to be done, and discussed whether the introduction of legislation to enforce minimum standards should be advised. It was agreed to recommend the continuance of the voluntary system for a further five years during which time individual cases of difficulty should, as before, be referred to the Committee for advice. The Committee thought that serious consideration ought to be given at the end of this second five year period to the introduction of legislation if necessary.

This booklet contains the spacing standards recommended by the Joint Advisory Committee as amended by the Joint Standing Committee. These standards vary according to whether the machinery is in new or in existing buildings and the division is as follows:

Category "A"

Installation of plant in new buildings. ("New buildings" means buildings erected or acquired after 1949 and includes existing buildings taken into use for the first time as textile factories.)

Category "B"

New or reorganised installations in existing rooms.

The mere replacement of a machine by a new one of a similar type is not regarded as a new installation unless it is one of a series of replacements, but any rearrangement of machinery is considered to be a reorganisation.

For certain machines the category is sub-divided into:

B (i) installation of new machinery in existing rooms;

or

B (ii) reorganisation of existing machinery in existing rooms; also the installation of existing machinery in fresh premises (other than new buildings as defined in Category "A") where the B (i) standards cannot reasonably be attained.

Tables of the Minimum Dimensions Recommended for the Spacing of Wool Textile Machinery

CARDING MACHINES

Category	(1) <i>Sides of Woollen and Worsted Cards</i> (Between nearest moving parts of two cards or between card and wall)	(2) <i>Main Gangways in Woollen Card Rooms</i> (⁽¹⁾)		(3) <i>Worsted Cards</i>		
		(a) Between two cards or card and wall	(b) Between cards and mules	(a) <i>Main Gangway</i>	(b) Space at feed or delivery end	(c) Between delivery ends of two rows of cards
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
A ..	3 6	7 6	7 6	8 0	5 0	8 0
B (⁽¹⁾) ..	2 6	6 6 (⁽²⁾) (⁽³⁾)	6 6 (⁽²⁾) (⁽³⁾) (⁽⁴⁾)	7 0 (between 2 cards) 6 0 (card to wall)	3 6	(⁽⁵⁾)

NOTES:

- (⁽¹⁾) The expression "Main Gangway" here means any gangway at the sides or ends of woollen cards along which there is conveyance of materials other than conveyance by fan through overhead ducting.
- (⁽²⁾) Where there is difficulty in reaching the Category B standards the Joint Standing Committee may be consulted.
- (⁽³⁾) Where the gangway is used only for the passage of condenser bobbins, 6 ft. may be accepted.
- (⁽⁴⁾) Except where the lay-out of cards does not permit, in which case 6 ft. may be accepted.
- (⁽⁵⁾) Provided that where condenser bobbins are stored in this space this measurement shall be 7 ft. 6 in. (or where the lay-out of cards does not permit, 7 ft.).
- (⁽⁶⁾) No special recommendation was made.

WORSTED DRAWING MACHINERY

Category	(1) Main Gangways	(2) Gill and Drawing Boxes			(3) Reducing and Roving Frames		
		(a) Fronts (Between spindles)	(b) Backs	(c) Sides	(a) Fronts (Between spindles)	(b) Backs	(c) Sides
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
A ..	6 0	3 0	3 0 ^(x)	3 0 ^(x)	3 6	2 0 ^(x)	3 0 ^(x)
B (i) ..	5 0	3 0	2 0 ^(x)	2 6 ^(x)	3 6	2 0 ^(x)	2 6 ^(x)
B (ii) ..	5 0 ^(y)	3 0	2 0 ^(y)	2 6 ^(x) (y)	3 0	1 6 ^(x)	2 6 ^(x) (y)

NOTES:

Overhead, vertical, or other creels and cans in use are to be regarded as part of the machine.

- (x) This provision shall not be interpreted as requiring a gangway between machine and wall or between adjacent machines which are not more than 6 in. apart, provided that any reducing or roving frames placed side to side without intervening gangways shall not have between them a total of more than 48 spindles.
- (y) Where there is difficulty in reaching these standards the Joint Standing Committee should be consulted.
- (z) In the case of machines with overhead creels, or with detached vertical creels of the type where creeling is done between the creel and the machine, this provision shall not be interpreted as requiring a clear space between creel and wall where machines are placed with their backs to a wall or between two creels where machines are placed back to back, provided there is no main gangway at the backs of the machines.

SPINNING AND TWISTING FRAMES

Category	(1) Main Gangway	(2) Spinners' and Twistors' Gate (Between spindle centres)	
		(a) Without self-doffers	(b) With self-doffers
	ft. in.	ft. in.	ft. in.
A	6 0	3 6	4 0
B (i)	5 0	3 6	4 0
B (ii)	5 0 ^(y)	3 0	3 6

NOTE:

- (y) Where there is difficulty in reaching this standard the Joint Standing Committee should be consulted and if the width of the main gangway is considered inadequate, a suitable provision should be made for skeps to be kept elsewhere than in the alley.

MULES

Category	(1) <i>Main Gangway</i> (Across the ends of mules)		(2) <i>Subsidiary Gangways</i> (Between mule and wall)	(3) <i>Mulegate</i> (Between headstock of one mule and faller bar of the next)		(4) <i>Backs of Mules</i>	
	(a)	(b)				(a)	(b)
	Between two lines of mules	Between a single line of mules and a wall				<i>Woolen Mules</i> Between two mules or between mule and wall measured from the boards supporting the tin rollers	<i>Worsted Mules</i> Between two mules or between mule and wall measured from the backs of the roller beams
	ft. in.	ft. in.	ft. in.	ft. in.		ft. in.	ft. in.
A ..	8 0	6 0	2 0 ^(w)	2 0		3 0	3 0
B ..	6 6 ^(y)	6 0	2 0 ^(w) (^x)	(a) Mills built since 1895	(b) Mills built before 1896	2 6 ^(x)	3 0
				ft. in. 2 0	ft. in. 1 9		

NOTES:

- (1) In no case should a carriage or carriage wheel approach within 18 in. of a pillar or wall.
- (2) Difficulties may be expected in reaching the Category B standards where existing mules are re-spaced in existing buildings, and in respect of measurement (4) where new mules are installed in buildings erected before 1896. In such cases the Joint Standing Committee should be consulted and the possibility of alternative safety measures considered by them.
- (w) This shall not be interpreted as requiring the provision of a subsidiary gangway but where there is such a gangway it shall not be less than 2 ft. wide.
- (x) Where creeling (other than creeling with condenser bobbins) is done at the back of a mule this measurement should not be less than 3 ft.
- (y) Provided that the Joint Standing Committee may have power to reduce this measurement to 6 ft. where the additional 6 in. would involve the elimination of a standard bobbin.
- (z) Cases where this spacing would involve the elimination of a standard bobbin may be referred to the Joint Standing Committee.

LOOMS

Category	(1)	(2) Gangways		(3) Weavers' Alleys (Between breast beams)	
	<i>Backs of Looms</i> (Between beam flanges)	(a) <i>Main Gangways</i> (Any gangway between the ends of looms used for the passage of beams)	(b) <i>Subsidiary Gangways</i> (Not used for the passage of beams)	(a) Where only one weaver works in the alley	(b) Where more than one weaver works in the alley
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
A ..	3 6	6 6	3 0	2 0	2 6
B ..	(*)	5 6	2 0	1 9	2 0

NOTES:

The above table is intended to apply to looms arranged in the usual manner, face to face and back to back. Occasionally, however, all looms in a room face in the same direction, i.e. the weaver works between the breast beam of one loom and the warp beam of the next. Where looms are arranged in this manner, we consider that the width of the weaver's alley should be 2 ft. 6 in. for Category A looms and 2 ft. 3 in. for Category B looms, measured between the breast beam of one loom and the beam flanges of the next.

(*) Backs of Looms (Category B): the space between beam flanges shall be equal to the diameter of the beam flange plus 6 in., provided that:

(a) In no case shall the clear space between flanges be less than 20 in.

(b) Where the diameter of the beam flanges exceeds 26 in., for the above reference to 6 in. there shall be substituted 9 in.